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September 3d, 1850.

Dr. MORTON, President, in the Chair.

A letter was read from the Secretary of the Smithsonian Institution, dated Washington, August 10th, 1850, acknowledging the reception of Vol. 1st, new series, of the Journal, by that Institution.

A letter was read from Dr. D. D. Owen, addressed to President Morton, dated July 18, 1850, stating the fact as worthy of record, that the cane (*Miegia arundinacea*) had this year borne flowers and produced seed in Indiana, a rare occurrence with this plant. Mr. Nuttall, in his "Genera of N. A. Plants," in reference to "*M. gigantea*?" perhaps a variety of "*macrosperma*," says, "this species is supposed to flower but once in 20 or 25 years."

Mr. Clay observed that this occurrence was not confined to Indiana this year, but was very extensive in the Western States. Similar facts in relation to the flowering of other plants, as the Bamboo, were also adverted to.

Mr. Robert Kilvington exhibited a collection of Australian plants, twenty-three in number, which he had raised from seed presented to the Academy by Dr. Charles Nicholson, of Sydney. They were all in a fine healthy condition, and consisted of *Acacia rutifolia*, *A. meloxylon*, *A. —*, *Aotus villosa*, *Bossicea scolopendrium*, *B. prostrata*, *B. rotundifolia*, *Calotis —*, *Calothamnus villosa*, *Callistachys ovata*, *Casuarina tenuifolia*, *Dillwynia ericifolia*, *D. phyllicoides*, *Hibiscus, Richardsonii*, *Kennedia rubicundi*, *Indigofera gracilis*, *Leptospermum australe*, *Pomaderris discolor*, *Pultenæa hirsuta*, *Sphærolobium vimineum*, *Lamia australis*.

September 10th.

Dr. MORTON, President, in the Chair.

Dr. Morton offered some remarks on the value of the word *species* in Zoology.

On this point there is great diversity of opinion among naturalists. Some deny the law of specific distinctions—at least, their arguments lead to this inference. Thus, Lamarck and Geoffroy St. Hilaire insist upon the uninterrupted succession of the animal kingdom—the gradual mergence of one species into another, from the earliest ages of time; and they suppose that the fossil animals whose remains are preserved in the various geological strata, however different from those of our own time, may nevertheless have been the ancestors of those now in being. Sir Charles Lyell has opposed this theory with great ingenuity and general success; yet whoever will examine the facts and arguments employed by its authors, may be disposed to admit that it is not altogether devoid of foundation in some exceptions to the general law of Nature.

Somewhat allied to this is the opinion of Swainson and others, that permanent varieties constitute species, or in other words, that variations of climate, food and treatment produce specific distinctions.

Species is defined by Buffon, "a succession of similar individuals which re-produce each other." Cuvier's definition is nearly the same; but he adds that "the apparent differences of the races of our domestic species are stronger than those of any species of the same genus. The fact of the *succession*, therefore, and of the constant succession, constitutes alone the validity of the species."

An objection to these definitions arises from the fact that they apply as readily to mere varieties as to acknowledged species. Certain albino animals re-produce, *inter se*, to an indefinite extent; such also is the case with some fanciful varieties of the dog, pigeon, &c., which are capable of multiplying by the law of succession, and yet have no claim to specific distinction, in the restricted acceptation of that term.

I have brought together these definitions, in the first place to show that naturalists are by no means agreed upon what constitutes a species, and secondly, to offer some views of my own.

As the result of much observation and reflection, I now submit a definition which I hope will obviate at least some of the objections to which I have alluded. SPECIES—*a primordial organic form*. It will be justly remarked that a difficulty presents itself, at the outset, in determining what forms are primordial; but independently of various other sources of evidence, we may be assisted in the inquiry by those monumental records, both of Egypt and Assyria, of which we are now happily possessed of the proximate dates. My view may be briefly explained by saying, that if certain existing organic types can be traced back into the "night of time," as dissimilar as we see them now, is it not more reasonable to regard them as aboriginal, than to suppose them the mere accidental derivations of an isolated patriarchal stem of which we know nothing? Hence, for example, I believe the dog family not to have originated from one primitive form, but from many. Again, what I call a species may be regarded by some naturalists as a *primitive variety*; but, as the difference is only in name, and in no way influences the zoological question, it is unnecessary to notice it further.

These views appear to correspond with those of Mr. Linnæus Martin, who expresses himself in the following terms:

"We are among those who believe that, as there are degrees in the relationship of species to species, some may, although distinct, approximate so nearly as not only to produce *inter se*, males incapable of interbreeding, but a *progeny of fertile hybrids, capable of admixture, even to the most unlimited extent*.

Species may therefore be classed according to their disparity or affinity, in the following provisional manner:

Remote species of the same genus, are those among which hybrids are never produced.

Allied species produce *inter se*, an infertile offspring.

Proximate species produce with each other a fertile offspring.